



SITOP modular/3AC/24VDC/20A

SITOP modular 20 A stabilized power supply input: 400-500 V 3 AC output: 24 V DC/20 A

Technical Product Detail Page

<https://i.siemens.com/1P6EP1436-3BA00>

input	
type of the power supply network	3-phase AC
supply voltage at AC	
<ul style="list-style-type: none"> • minimum rated value • maximum rated value • initial value • full-scale value 	400 V 500 V 320 V 550 V
supply voltage at AC	Starting from $V_{in} > 340$ V
wide range input	Yes
overvoltage overload capability	$2.3 \times V_{in}$ rated, 1.3 ms
buffering time for rated value of the output current in the event of power failure minimum	6 ms
operating condition of the mains buffering	at $V_{in} = 400$ V
line frequency	50/60 Hz
line frequency	47 ... 63 Hz
input current	
<ul style="list-style-type: none"> • at rated input voltage 400 V • at rated input voltage 500 V 	1.1 A 0.9 A
current limitation of inrush current at 25 °C maximum	35 A
I ² t value maximum	0.7 A ² ·s
fuse protection type	none
fuse protection type in the feeder	Required: 3-pole connected miniature circuit breaker 6 ... 16 A characteristic C or circuit breaker 3RV2011-1DA10 (setting 3 A) or 3RV2711-1DD10 (UL 489)
output	
voltage curve at output	Controlled, isolated DC voltage
output voltage at DC rated value	24 V
output voltage	
<ul style="list-style-type: none"> • at output 1 at DC rated value 	24 V
output voltage adjustable	Yes; via potentiometer
adjustable output voltage	24 ... 28.8 V; max. 480 W
relative overall tolerance of the voltage	3 %
relative control precision of the output voltage	
<ul style="list-style-type: none"> • on slow fluctuation of input voltage • on slow fluctuation of ohm loading 	0.1 % 0.2 %
residual ripple	
<ul style="list-style-type: none"> • maximum 	100 mV
voltage peak	
<ul style="list-style-type: none"> • maximum 	200 mV

display version for normal operation	Green LED for 24 V OK
type of signal at output	via signaling module (6EP1961-3BA10)
behavior of the output voltage when switching on	No overshoot of Vout (soft start)
response delay maximum	2.5 s
voltage increase time of the output voltage <ul style="list-style-type: none"> • maximum 	500 ms
output current <ul style="list-style-type: none"> • rated value • rated range 	20 A 0 ... 20 A; +60 ... +70 °C: Derating 2%/K
supplied active power typical	480 W
short-term overload current <ul style="list-style-type: none"> • at short-circuit during operation typical 	60 A
duration of overloading capability for excess current <ul style="list-style-type: none"> • at short-circuit during operation 	25 ms
constant overload current <ul style="list-style-type: none"> • on short-circuiting during the start-up typical 	23 A
bridging of equipment	Yes; switchable characteristic
number of parallel-switched equipment resources for increasing the power	2
efficiency	
efficiency in percent	90 %
power loss [W] <ul style="list-style-type: none"> • at rated output voltage for rated value of the output current typical 	53 W
closed-loop control	
relative control precision of the output voltage with rapid fluctuation of the input voltage by +/- 15% typical	1 %
relative control precision of the output voltage load step of resistive load 50/100/50 % typical	2 %
setting time <ul style="list-style-type: none"> • load step 50 to 100% typical • load step 100 to 50% typical 	4 ms 4 ms
setting time <ul style="list-style-type: none"> • maximum 	10 ms
protection and monitoring	
design of the overvoltage protection	< 35 V
property of the output short-circuit proof	Yes
design of short-circuit protection <ul style="list-style-type: none"> • typical 	Alternatively, constant current characteristic approx. 23 A or latching shutdown 23 A
enduring short circuit current RMS value <ul style="list-style-type: none"> • typical 	23 A
display version for overload and short circuit	LED yellow for "overload", LED red for "latching shutdown"
safety	
galvanic isolation between input and output	Yes
galvanic isolation	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178
operating resource protection class	Class I
leakage current <ul style="list-style-type: none"> • maximum 	3.5 mA
protection class IP	IP20
EMC	
standard <ul style="list-style-type: none"> • for emitted interference • for mains harmonics limitation • for interference immunity 	EN 55022 Class B EN 61000-3-2 EN 61000-6-2
standards, specifications, approvals	
certificate of suitability <ul style="list-style-type: none"> • CE marking • UL approval • UKCA marking 	Yes Yes Yes

<ul style="list-style-type: none"> • EAC approval 	Yes
<ul style="list-style-type: none"> • Regulatory Compliance Mark (RCM) 	Yes
<ul style="list-style-type: none"> • NEC Class 2 	No
<ul style="list-style-type: none"> • SEMI F47 	Yes
type of certification	
<ul style="list-style-type: none"> • CB-certificate 	No
MTBF at 40 °C	711 213 h

standards, specifications, approvals hazardous environments

certificate of suitability	
<ul style="list-style-type: none"> • IECEx 	No
<ul style="list-style-type: none"> • ATEX 	No
<ul style="list-style-type: none"> • ULhazloc approval 	No
<ul style="list-style-type: none"> • FM registration 	No

standards, specifications, approvals marine classification

shipbuilding approval	Yes
Marine classification association	
<ul style="list-style-type: none"> • American Bureau of Shipping Europe Ltd. (ABS) 	Yes
<ul style="list-style-type: none"> • French marine classification society (BV) 	No
<ul style="list-style-type: none"> • Det Norske Veritas (DNV) 	Yes
<ul style="list-style-type: none"> • Lloyds Register of Shipping (LRS) 	No

standards, specifications, approvals Environmental Product Declaration

Environmental Product Declaration	Yes
global warming potential [CO2 eq]	
<ul style="list-style-type: none"> • total 	1 690.8 kg
<ul style="list-style-type: none"> • during manufacturing 	31.5 kg
<ul style="list-style-type: none"> • during operation 	1 658.4 kg
<ul style="list-style-type: none"> • after end of life 	0.45 kg

ambient conditions

ambient temperature	
<ul style="list-style-type: none"> • during operation 	0 ... 70 °C; with natural convection
<ul style="list-style-type: none"> • during transport 	-40 ... +85 °C
<ul style="list-style-type: none"> • during storage 	-40 ... +85 °C
environmental category according to IEC 60721	Climate class 3K3, 5 ... 95% no condensation

connection method

type of electrical connection	screw terminal
<ul style="list-style-type: none"> • at input 	L1, L2, L3, PE: 1 screw terminal each for 0.2 ... 4 mm ² single-core/finely stranded
<ul style="list-style-type: none"> • at output 	+, -: 2 screw terminals each for 0.33 ... 4 mm ²
<ul style="list-style-type: none"> • for auxiliary contacts 	-

mechanical data

width × height × depth of the enclosure	160 × 125 × 125 mm
installation width × mounting height	160 mm × 225 mm
required spacing	
<ul style="list-style-type: none"> • top 	50 mm
<ul style="list-style-type: none"> • bottom 	50 mm
<ul style="list-style-type: none"> • left 	0 mm
<ul style="list-style-type: none"> • right 	0 mm
fastening method	Snaps onto DIN rail EN 60715 35x7.5/15
<ul style="list-style-type: none"> • DIN-rail mounting 	Yes
<ul style="list-style-type: none"> • S7 rail mounting 	No
<ul style="list-style-type: none"> • wall mounting 	No
housing can be lined up	Yes
net weight	2 kg

accessories

electrical accessories	Buffer module, signaling module
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further information internet links

internet link	
<ul style="list-style-type: none"> • to website: Industry Mall 	https://mall.industry.siemens.com
<ul style="list-style-type: none"> • to web page: selection aid TIA Selection Tool 	https://www.siemens.com/tstcloud

- to website: CAx-Download-Manager
- to website: Industry Online Support

<https://siemens.com/cax>

<https://support.industry.siemens.com>

additional information

other information

Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

security information

security information

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Classifications

	Version	Classification
eClass	14	27-04-07-01
eClass	12	27-04-07-01
eClass	9.1	27-04-07-01
eClass	9	27-04-07-01
eClass	8	27-04-90-02
eClass	7.1	27-04-90-02
eClass	6	27-04-90-02
ETIM	10	EC002540
ETIM	9	EC002540
ETIM	8	EC002540
ETIM	7	EC002540
IDEA	4	4130
UNSPSC	15	39-12-10-04

Approvals Certificates

General Product Approval

[Manufacturer Declaration](#)

[Declaration of Conformity](#)



[China RoHS](#)



General Product Approval

Maritime application

Environment

[Miscellaneous](#)



last modified:

11/14/2025